REMARKS

After entry of this Amendment, claims 10-11 and 33-37 will be all the claims pending in the application. Claims 12, 40, 41 and 43 are hereby canceled without prejudice or disclaimer.

Claim Rejection - 35 U.S.C. § 102(b)

The Examiner rejected claims 40-41 and 43 as being anticipated by Shoda (JP 2001-050264; "Shoda"). Applicants submit that this rejection is moot in view of the cancellation of claims 40-41 and 43.

Claim Rejection - 35 U.S.C. § 103(a)

Claims 10-12 and 33-37 were rejected under § 103(a) as being unpatentable over Shoda in view of Nice (US 1,784,463; "Nice"). Applicants traverse this rejection for the reasons set forth below.

The Examiner alleges that Shoda discloses a roller element for a ball bearing which includes an outer diameter portion with a rolling contact face that has curvatures in an axial direction and a radial direction normal to the axial direction and including at least one plane. However, the Examiner concedes that Shoda is silent with regard to the method of forming the element. To remedy this deficiency, the Examiner applies Nice alleging it teaches or suggests forging a billet to form a ball blank and removing flesh to produce the cylindrical roller 2. (Office Action, pp. 2 & 3). Additionally, the Examiner citing, without any discussion, various pieces of prior art, proposes that the forging of various roller designs of any shape is obvious.

First, this type of conclusory rejection indicating that one of ordinary skill in the art would be capable of modifying a forging process for various roller designs is unsupported by any

legal precedent. In fact, in order to establish *prima facie* obviousness, the Examiner must: (1) present some teaching, suggestion or motivation to modify or combine the references; (2) show there is a reasonable expectation of success; and (3) show that the prior art reference teaches or suggests all the claim limitations. MPEP § 2143. Here, the Examiner has failed to show any reference that teaches or suggests forge forming a blank ball wherein said blank ball includes at least one plane. Additionally, the Examiner improperly attempts to cite to several references that indicate many forging features, without providing any motivation, teaching or suggestion to combine these with the teachings of Shoda and Nice.

In view of the above, Applicants submit that Shoda or Nice, either alone or in combination, fail to teach or suggest: (1) forming a blank ball wherein said blank ball includes at least one plane; and (2) a connection portion between said rolling contact face and the at least one plane having a predetermined radius of curvature, as recited in claims 10 and 34.

In particular, Shoda merely teaches a ball cut at the upper surface and lower parts for defining a set of planes, and fails to disclose or suggest that the sphere surface as the rolling contact face and that the planes normal to the sphere are forge-formed.

Furthermore, while Nice discloses a technique of forge-forming balls, there is absolutely no teaching or suggestion of forge-forming rolling elements with a structure as recited, i.e. a blank ball wherein said blank ball includes at least one plane. Rather, Nice teaches that only spherical balls are produced by forge-forming and, then, via center-less grinding formed to have a paralleled portion as a cylindrical surface. (col. 1, lines 48-87).

Further, neither Shoda nor Nice, either alone or in combination, teach or suggest a method of producing the rolling elements in which the connecting portion located between the

sphere surface and the plane has the curved surface with the curvature, as recited in claims 1 and 34. The Examiner seems to allege that Nice teaches this feature. (Office Action, p. 4) However, Applicants submit that Nice only discloses a contact face having a single curvature. (Abstract, i.e. "an outer diameter 5a forming a rolling contact face has a curvature in an axial direction.") Thus, there is no connecting portion between side portion 5b and rolling the rolling contact face having a diameter of 5a that exhibits any curvature. Rather, the transition is a sharp edge-like transition. (FIG. 1). Likewise, Shoda teaches spherical segments 3, which transition to cylindrical roller 2 via an abrupt edge-like transition that has no curvature. (FIG. 1)

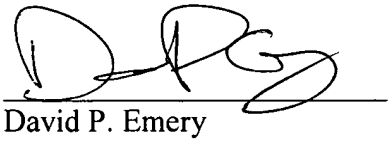
Thus, Applicants submit that claims 10 and 34 are allowable for at least the above reasons. Additionally, Applicants submit that claims 11, 33, 35, 36 and 37 are allowable, at least because of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



David P. Emery
Registration No. 55,154

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: July 20, 2006